

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Robert Iannucci on 03/26/2009.

2. The application has been amended as follows:

IN THE CLAIMS:

In claim 11, line 5, "coupled to the main switch and" has been deleted; and
at line 11, "the second terminal" has been changed to --a second terminal--; and
at line 13, "a second terminal" has been changed to --the second terminal--.

In claim 4, line 1, "a first terminal" has been changed to --the first terminal--.

Allowable Subject Matter

3. Claims 1-7 and 9-16 are allowed.
4. The following is an examiner's statement of reasons for allowance:

Claim 1 recites, inter alia the controller controls the first output switch such that, during one switching cycle, the coil current flows from the second terminal of the inductance into both outputs; and the controller controls the main switch in a transient

state of the up-down converter, so that an average voltage on the first terminal of the inductance is equal to a voltage on the second terminal of the inductance.

Claim 4 recites, inter alia, where the controller is configured to control: the first output switch so that during one switching cycle the coil current flows from the second terminal of the inductance into both outputs at least once; and the main switch in a transient state of the up-down converter so that an average voltage on the second terminal of the inductance is equal to a voltage on the first terminal of the inductances, which is equal to the input voltage.

Claim 11 recites, inter alia, a controller configured to control the first output switch such that, during one switching cycle, the coil current flows from a second terminal of the inductance into both outputs; and control the first input switch in a transient state so that an average voltage on a first terminal of the inductance is equal to a voltage on the second terminal of the inductance.

The art of record does not disclose the above limitations, nor would it be obvious to modify the art of record so as to include either of the above limitations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica Han whose telephone number is 571-272-2078. The examiner can normally be reached on Mon-Fri 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm Ullah can be reached on 571-272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jessica Han/
Primary Examiner, Art Unit 2838